

# **THE DEVELOPMENT OF DIAGNOSTIC TEST SYSTEM OF BASIC VOCATIONAL COMPETENCE LEARNING DIFFICULTIES OF VOCATIONAL HIGH SCHOOL STUDENTS**

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## **Abstract**

This research aims to: a) develop diagnostic test system of basic vocational competence learning difficulties of Vocational High School (SMK) students and b) explore the performance of the diagnostic test system of basic vocational competence has been developed.

This research was the third year of the three year research plan. This research implemented the software research and development approach. The development model used in this research was modified linear sequential model or classic life cycle or waterfall model that consisted of four steps. System need analysis and system design were conducted in the first year. Coding and program validation were conducted in the second year. The last step, evaluation of system performance, will be conducted in the third year to see the impact of diagnostic test system of basic vocational competence learning difficulties of Vocational High School students. The study was conducted in four public SMKs in D.I. Yogyakarta on study program of Computer Engineering and Networks, involving 98 students and 77 teachers. Data collected by tests and questionnaires. Data were analyzed descriptively. The results showed that: 1) according to students the benefit of the diagnostic test system of basic vocational competence learning difficulties categorized good, while according to the teachers the benefit of the system categorized very good. 2) According to the students the impact of the diagnostic test system of basic vocational competence learning difficulties categorized good, whereas according teachers the impact of the system categorized excellent.

**Keywords:** learning difficulties, vocational basic competence, SMK, diagnostic tests